



RL-2012-S RL-3308-S

SHIELDED SMD POWER INDUCTORS



FEATURES

- Low profile and shielded. Great for applications when space is at a premium.
- Low resistance and high energy storage.

APPLICATIONS

Excellent as DC-DC Converter used in notebook computers, PDA, cell phones, step-up or step-down converters and flash memory.

MATERIALS CONSTRUCTION

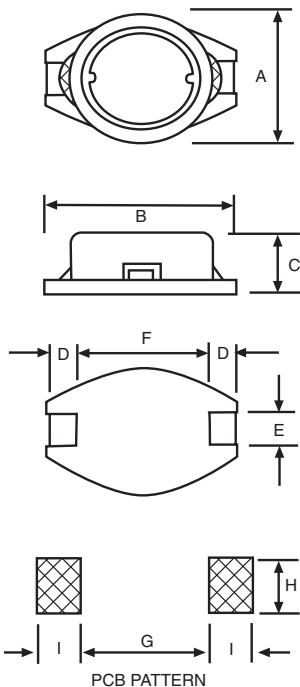
- Core: Ferrite DR Core
- Core: RI Core
- Wire: Enameled Copper Wire
- Base: LCP E4008
- Terminal: Tinned Copper Plate
- Adhesive: Epoxy Resin

GENERAL SPECIFICATIONS

I_{ms} : Based on temperature rise
 I_{sat} : Based on $\Delta L / LO$
 Operating Temperature: -40°C to $+85^{\circ}\text{C}$
 Storage Temperature: -40°C to $+105^{\circ}\text{C}$
 Resistance to solder heat: 260°C for 10 seconds

TAPE AND REEL PACKAGING

Part Number	Pieces per reel	Plastic reel size
RL-2012-S	1,000	13"
RL-3308-S	1,000	13"



MECHANICAL DIMENSION (m/m)

Part Number	A	B	C	D	E	F	G (Ref)	H (Ref)	I (Ref)
RL-2012-S	8.00±0.2	10.50±0.2	5.00±0.3	2.10±0.2	2.00±0.2	6.00±0.3	5.70	2.20	2.40
RL-3308-S	10.0±0.2	12.7±0.2	3.00±0.3	2.40±0.2	2.20±0.2	7.60±0.3	7.30	2.80	3.00



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Part Number	Inductance (μ H)	Testing Freq. (Hz)	SRF (MHz) Typ.	DCR (Ω) Max.	I _{ms} (A)	I _{sat} (A)
RL-2012-S-2R2M	2.2 \pm 20%	0.1V / 100K	75.0	0.040	2.50	6.00
RL-2012-S-3R9M	3.9 \pm 20%	0.1V / 100K	50.0	0.055	2.10	4.50
RL-2012-S-5R6M	5.6 \pm 20%	0.1V / 100K	40.0	0.065	1.95	4.00
RL-2012-S-8R2M	8.2 \pm 20%	0.1V / 100K	32.0	0.080	1.75	3.00
RL-2012-S-100M	10.0 \pm 20%	0.1V / 100K	28.0	0.100	1.50	2.50
RL-2012-S-120M	12.0 \pm 20%	0.1V / 100K	24.0	0.120	1.40	2.00
RL-2012-S-150M	15.0 \pm 20%	0.1V / 100K	22.0	0.140	1.30	1.80
RL-2012-S-180L	18.0 \pm 15%	0.1V / 100K	19.0	0.160	1.20	1.60
RL-2012-S-220L	22.0 \pm 15%	0.1V / 100K	17.0	0.180	1.10	1.50
RL-2012-S-270L	27.0 \pm 15%	0.1V / 100K	15.5	0.200	1.00	1.40
RL-2012-S-330L	33.0 \pm 15%	0.1V / 100K	13.5	0.240	0.92	1.30
RL-2012-S-390L	39.0 \pm 15%	0.1V / 100K	12.0	0.260	0.84	1.00
RL-2012-S-470L	47.0 \pm 15%	0.1V / 100K	10.5	0.280	0.75	0.90
RL-2012-S-560K	56.0 \pm 10%	0.1V / 100K	9.5	0.380	0.68	0.80
RL-2012-S-680K	68.0 \pm 10%	0.1V / 100K	9.0	0.440	0.60	0.70
RL-2012-S-820K	82.0 \pm 10%	0.1V / 100K	8.5	0.550	0.54	0.60
RL-2012-S-101K	100.0 \pm 10%	0.1V / 100K	7.5	0.600	0.50	0.50
RL-2012-S-121K	120.0 \pm 10%	0.1V / 100K	7.0	0.750	0.45	0.45
RL-2012-S-151K	150.0 \pm 10%	0.1V / 100K	6.5	0.900	0.40	0.40
RL-2012-S-181K	180.0 \pm 10%	0.1V / 100K	4.8	1.050	0.35	0.37
RL-2012-S-221K	220.0 \pm 10%	0.1V / 100K	4.5	1.180	0.30	0.35
RL-2012-S-271K	270.0 \pm 10%	0.1V / 100K	4.2	1.400	0.27	0.32
RL-2012-S-331K	330.0 \pm 10%	0.1V / 100K	3.8	1.800	0.24	0.30
RL-2012-S-391K	390.0 \pm 10%	0.1V / 100K	3.6	2.100	0.22	0.28
RL-2012-S-471K	470.0 \pm 10%	0.1V / 100K	3.5	2.250	0.20	0.26
RL-2012-S-561K	560.0 \pm 20%	0.1V / 100K	3.0	3.000	0.18	0.25
RL-2012-S-681K	680.0 \pm 20%	0.1V / 100K	2.8	3.400	0.17	0.23
RL-2012-S-821K	820.0 \pm 20%	0.1V / 100K	2.5	4.000	0.16	0.22
RL-2012-S-102K	1000.0 \pm 20%	0.1V / 100K	2.2	5.000	0.15	0.20

Other non standard inductance values are available to meet your exact requirements.

Note:

1. Inductance measured by LCR Meter HP 4294/HP4291.
2. DCR measured by Milliohm meter CH 502 AC.
3. SRF measured by Network analyzer HP 4294/HP4291.
4. Δ TEMPERATURE = 40°C Max at I_{ms}.
5. Δ L / LOA = 10% Typical at I_{sat}.



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RL-3308-S-2R2M	2.2 \pm 20%	0.1V / 100K	90.0	0.045	3.50	4.20
RL-3308-S-3R0M	3.0 \pm 20%	0.1V / 100K	70.0	0.062	3.00	3.60
RL-3308-S-3R9M	3.9 \pm 20%	0.1V / 100K	60.0	0.070	2.80	3.40
RL-3308-S-4R7M	4.7 \pm 20%	0.1V / 100K	50.0	0.078	2.50	3.00
RL-3308-S-6R8M	6.8 \pm 20%	0.1V / 100K	50.0	0.100	2.20	2.60
RL-3308-S-100M	10.0 \pm 20%	0.1V / 100K	38.0	0.145	2.00	2.20
RL-3308-S-120M	12.0 \pm 20%	0.1V / 100K	29.0	0.185	1.75	2.00
RL-3308-S-150M	15.0 \pm 20%	0.1V / 100K	30.0	0.200	1.50	1.80
RL-3308-S-180M	18.0 \pm 20%	0.1V / 100K	25.0	0.270	1.40	1.60
RL-3308-S-220M	22.0 \pm 20%	0.1V / 100K	22.0	0.300	1.30	1.50
RL-3308-S-270M	27.0 \pm 20%	0.1V / 100K	18.0	0.400	1.20	1.30
RL-3308-S-330M	33.0 \pm 20%	0.1V / 100K	17.0	0.450	1.10	1.20
RL-3308-S-390M	39.0 \pm 20%	0.1V / 100K	17.0	0.560	0.95	1.10
RL-3308-S-470M	47.0 \pm 20%	0.1V / 100K	15.0	0.650	0.80	1.05
RL-3308-S-560M	56.0 \pm 20%	0.1V / 100K	14.0	0.680	0.75	1.00
RL-3308-S-680M	68.0 \pm 20%	0.1V / 100K	12.0	0.800	0.70	0.90
RL-3308-S-820M	82.0 \pm 20%	0.1V / 100K	11.0	1.200	0.65	0.85
RL-3308-S-101M	100.0 \pm 20%	0.1V / 100K	9.5	1.400	0.60	0.80
RL-3308-S-121M	120.0 \pm 20%	0.1V / 100K	8.5	1.520	0.55	0.70
RL-3308-S-151M	150.0 \pm 20%	0.1V / 100K	8.0	1.800	0.50	0.65
RL-3308-S-181M	180.0 \pm 20%	0.1V / 100K	7.0	2.200	0.45	0.60
RL-3308-S-221M	220.0 \pm 20%	0.1V / 100K	6.5	2.200	0.40	0.50
RL-3308-S-271L	270.0 \pm 15%	0.1V / 100K	5.5	3.100	0.35	0.45
RL-3308-S-331L	330.0 \pm 15%	0.1V / 100K	5.2	3.600	0.30	0.40
RL-3308-S-391L	390.0 \pm 15%	0.1V / 100K	5.0	4.600	0.25	0.35
RL-3308-S-471L	470.0 \pm 15%	0.1V / 100K	4.5	5.100	0.20	0.30

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